



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/636,011	08/07/2003	John T. Buikema	0899-0048	1526
47050	7590	06/24/2005	EXAMINER	
RYNDAK & SURI 30 NORTH LASALLE STREET SUITE 2630 CHICAGO, IL 60602			LE, TOAN M	
			ART UNIT	PAPER NUMBER
			2863	

DATE MAILED: 06/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

(A)

<b>Office Action Summary</b>	<b>Application No.</b> 10/636,011	<b>Applicant(s)</b> BUIKEMA ET AL.	
	<b>Examiner</b> Toan M. Le	<b>Art Unit</b> 2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 07 August 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 August 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input checked="" type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/2/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Drawings*

Please label the blocks in figure 1.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-33 are rejected under 35 U.S.C. 102(e) as being anticipated by Dismukes et al. (Pub. No. 2004/0148047 A1).

Referring to claim 1, Dismukes et al. disclose a manufacturing monitoring system used to determine the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract), comprising:

means for gathering data relating to the efficiency of the production plant, the assembly line or the components of the assembly line (page 1, [0016], [0017], [0021]; page 2, [0027]);

said data being selected from the group consisting of unit output values, downtime occurrences, downtime duration, downtime incident codes, downtime categorization, action items, minute ran, hours scheduled, capable rate, actual output, idle time, total time, waste analysis values, or combination thereof (page 7, [0120]; figures 2, 3A, 3B);

means for storing the gathered data (page 14, [0295]; page 15, [0301]; page 21, claim 66);

means for calculating production efficiency based on the gathered data to provide calculated data (page 5, [0082], [0083], [0084], [0092]; page 21, claim 67);

means for communicating the gathered data and the calculated data within said system (page 15, [0301]; page 21, claim 66); and

means for displaying the calculated data (figures 25 and 34).

As to claim 2, Dismukes et al. disclose a manufacturing monitoring system used to determine the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract) further comprising:

means for displaying the gathered data (figure 34).

Referring to claim 3, Dismukes et al. disclose a manufacturing monitoring system used to determine the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract) further comprising:

means for storing the calculated data (page 15, [0301]; page 21, claim 66).

As to claim 4, Dismukes et al. disclose a manufacturing monitoring system used to determine the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract) wherein said means for gathering data is circuitry that monitors the condition and operation of an assembly or a process line component or subcomponent (page 21, claim 69).

Referring to claim 5, Dismukes et al. disclose a manufacturing monitoring system used to determine the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract) wherein said circuitry used to monitor the condition and operation of an assembly or a process line component or subcomponent is a programmable logic controller (page 22, claims 85 and 99).

As to claim 6, Dismukes et al. disclose a manufacturing monitoring system used to determine the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract) wherein said means for gathering data is an input device capable of sending or receiving data selected from the group consisting of an electronic terminal, a personal computer, a computer, a data processor, a handheld data device, or combination thereof (page 22, claims 85 and 99).

Referring to claim 7, Dismukes et al. disclose a manufacturing monitoring system used to determine the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract) wherein said means for gathering data is an input device for sending or receiving data and which allows the operator to batch enter the data (page 2, [0024]; page 10, [0189]).

As to claim 8, Dismukes et al. disclose a manufacturing monitoring system used to determine the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract) wherein said means for calculating production efficiency is a data processor (page 21, claim 64).

Referring to claim 9, Dismukes et al. disclose a manufacturing monitoring system used to determine the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract) wherein said means for storing the gathered data is a database (page 14, [0295]; page 15, [0301]).

As to claim 10, Dismukes et al. disclose a manufacturing monitoring system used to determine the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract) wherein said means to communicate the information includes the Internet or an intranet (page 21, claim 71).

Referring to claim 11, Dismukes et al. disclose a manufacturing monitoring system used to determine the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract) wherein said means to display the information includes a terminal, computer, handheld device, monitor or other humanly perceptible display (figures 25 and 34).

As to claim 12, Dismukes et al. disclose a manufacturing monitoring system used to determine the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract) wherein said calculated data provides an efficiency report (page 14, [0300]).

Art Unit: 2863

Referring to claim 13, Dismukes et al. disclose a manufacturing monitoring system used to determine the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract), comprising:

data circuitry to gather data relating to the efficiency of the production plant, the assembly line or the components of the assembly line (page 1, [0016], [0017], [0021]; page 2, [0027]; page 21, claim 64),

said gathered data being selected from the group consisting of unit output values, downtime occurrences, downtime duration, downtime incident codes, downtime categorization, action items, minute ran, hours scheduled, capable rate, actual output, idle time, total time, waste analysis values, or combination thereof (page 7, [0120]; figures 2, 3A, 3B);

a data processor for receiving the gathered data and for performing calculations with at least some of the gathered data to provide calculated data (page 5, [0082], [0083], [0084], [0092]; page 21, claim 64); and

a display in communication with the data processor to display the calculated data (figures 25 and 34).

As to claim 14, Dismukes et al. disclose a manufacturing monitoring system used to determine the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract) further comprising:

a database in communication with the data processor for receiving and storing the calculated data (page 14, [0295]; page 15, [0301]).

Referring to claim 15, Dismukes et al. disclose a manufacturing monitoring system used to determine the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract) wherein the calculated data provides an efficiency report (page 14, [0300]).

As to claim 16, Dismukes et al. disclose a manufacturing monitoring system used to determine the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract) wherein said data circuitry monitors the condition and operation of an assembly or process line component or subcomponent (page 21, claim 69).

Referring to claim 17, Dismukes et al. disclose a manufacturing monitoring system used to determine the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract) wherein said data circuitry is a programmable logic controller (page 22, claims 85 and 99).

As to claim 18, Dismukes et al. disclose a manufacturing monitoring system used to determine the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract) wherein

said data processor is an electronic terminal, a personal computer, a computer, a handheld computing device, or combinations thereof (page 22, claims 85 and 99).

Referring to claim 19, Dismukes et al. disclose a manufacturing monitoring system used to determine the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract) wherein said data circuitry is an input device which allows the operator to batch enter the gathered data (page 2, [0024]; page 10, [0189]).

As to claim 20, Dismukes et al. disclose a manufacturing monitoring system used to determine the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract) wherein said gathered data are communicated over the Internet or an intranet (page 21, claim 71).

Referring to claim 21, Dismukes et al. disclose a manufacturing monitoring system used to determine the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract) wherein said display for displaying the gathered data or the calculated data is a part of a computer terminal, a personal computer, a handheld data device, or a monitor (page 22, claims 85 and 99).

As to claim 22, Dismukes et al. disclose a manufacturing monitoring system used to determine the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract) comprising:

Art Unit: 2863

an input layer to gather data relating to the efficiency of the production plant, the assembly line or the components of the assembly line (page 1, [0016], [0017], [0021]; page 2, [0027]),

said data being selected from the group consisting of unit output values, downtime occurrences, downtime duration, downtime incident codes, downtime categorization, action items, minute ran, hours scheduled, capable rate, actual output, idle time, total time, waste analysis values, or combination thereof (page 7, [0120]; figures 2, 3A, 3B);

a data processor layer to calculate the production efficiency based on the said data gathered by the input layer (page 5, [0082], [0083], [0084], [0092]; page 21, claim 67);

a storage layer for storing the data gathered by the input layer and for storing the data calculated by the data processing layer (page 14, [0295]; page 15, [0301]; page 21, claim 66);

a communication layer to communicate the data stored at the storage layer within the manufacturing monitoring system (page 15, [0301]; page 21, claim 66); and

a presentation layer to display the data stored at the storage layer (figures 25 and 34).

Referring to claim 23, Dismukes et al. disclose a manufacturing monitoring method for determining the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract); said method comprising the steps of:

gathering data related to the efficiency of the production plant, the assembly line or the components of the assembly line (page 1, [0016], [0017], [0021]; page 2, [0027]);

selecting said gathered data from the group consisting of unit output values, downtime occurrences, downtime duration, downtime incident codes, downtime categorization, action items, minutes ran, hours scheduled, capable rate, actual output, idle time, total time, waste analysis values, or combination thereof (page 7, [0120]; figures 2, 3A, 3B);

calculating a production efficiency based on the gathered data with a data processor (page 5, [0082], [0083], [0084], [0092]; page 18, claim 4);



Art Unit: 2863

storing the gathered data and the calculated data in a memory (page 14, [0295]; page 15, [0301]; page 18, claim 3);

communicating the gathered data and the calculated data to other computers, terminals, servers, or databases (page 15, [0301]; page 18, claim 3); and

displaying the calculated data on a display (figures 25 and 34).

As to claim 24, Dismukes et al. disclose a manufacturing monitoring method for determining the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract), further comprising the additional step of: displaying the gathered data on a display (figures 25 and 34).

Referring to claim 25, Dismukes et al. disclose a manufacturing monitoring method for determining the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract), further comprising the additional step of:

communicating the calculated data over the Internet or an intranet (page 18, claim 8).

As to claim 26, Dismukes et al. disclose a manufacturing monitoring method for determining the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract), further comprising the additional step of:

communicating the gathered data over the Internet or an intranet (page 18, claim 8).

Referring to claim 27, Dismukes et al. disclose a manufacturing monitoring method for determining the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract), further comprising the additional step of:

storing the gathered data in a database (page 14, [0295]; page 15, [0301]).

As to claim 28, Dismukes et al. disclose a manufacturing monitoring method for determining the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract), further comprising the additional step of:

Art Unit: 2863

displaying the calculated data in a format viewable by a web-browser (figures 25 and 34).

Referring to claim 29, Dismukes et al. disclose a manufacturing monitoring method for determining the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract), wherein the step of calculating a production efficiency provides an efficiency report (page 14, [0300]).

As to claim 30, Dismukes et al. disclose a manufacturing monitoring method for determining the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract), further comprising the additional step of:

entering gathered data by batch entry into said system (page 2, [0024]; page 10, [0189]).

Referring to claim 31, Dismukes et al. disclose a manufacturing monitoring method for determining the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract), further comprising the additional step of:

communicating the calculated data over the Internet or an intranet (page 18, claim 8).

As to claim 32, Dismukes et al. disclose a manufacturing monitoring method for determining the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract), wherein

the step of gathering data related to the efficiency of the production plant, the assembly line or the components of the assembly line includes gathering data with a programmable logic controller (page 22, claims 85 and 99).

Referring to claim 33, Dismukes et al. disclose a manufacturing monitoring method for determining the efficiency of a production plant, an assembly or a process line or the components of that assembly or a process line (Abstract), wherein

Art Unit: 2863

the step of gathering data related to the efficiency of the production plant, the assembly line or the components of the assembly line includes monitoring the condition or operation of an assembly or a process line component or subcomponent (page 19, claim 21).

### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

“Capacity Utilization Bottleneck Efficiency System-CUBES”, Konopka, John, IEEE Transactions on Components, Packaging, and Manufacturing Technology, Part A, Vol. 18, No. 3, September 1995, Pages 484-491

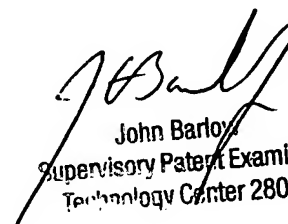
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan M. Le whose telephone number is (571) 272-2276. The examiner can normally be reached on Monday through Friday from 9:00 A.M. to 5:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Toan Le

June 15, 2005

  
John Barlow  
Supervisory Patent Examiner  
Technology Center 2800